

METHOD AND APPARATUS FOR THREE DIMENSIONAL INSPECTION OF
ELECTRONIC COMPONENTS

ABSTRACT OF THE DISCLOSURE

A three dimensional inspection method for inspecting ball array devices having a plurality of balls, where the ball array device is positioned in an optical system. The inspection method includes the steps of illuminating at least one ball on the ball array device, and disposing a sensor, a first optical element and a second optical element in relation to the ball array device so that the sensor obtains at least two differing views of the at least one ball, the sensor providing an output representing the at least two differing views. The output is processed using a triangulation method to calculate a three dimensional position of the at least one ball with reference to a pre-calculated calibration plane.

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